REMARKS

Applicant is in receipt of the Office Action mailed July 1, 2005. Claims 1, 3-14, 16-27, 29-40, and 42-55 were rejected. Claims 1, 3-14, 16-18, 20-21, 24-27, 29-35, 37-40, 42, 44, 46-52, and 55 have been amended. New claims 56-59 have been added. Claims 1, 3-14, 16-27, 29-40, and 42-59 are currently pending in the application.

§102 Rejections

Claims 1, 3-5, 7-14, 16-18, 20-27, 29-31, 33-40, and 42-55 were rejected under 35 U.S.C. 102(e) as being anticipated by Blowers. Applicant respectfully traverses this rejection. Taking claim 1 as an exemplary claim, the claim has been amended to recite as follows:

> 1. (Currently Amended) A method for generating a computer program, the method comprising:
>
> receiving user input to a prototyping application, wherein the user input specifies a prototype, wherein the prototype comprises a series of functional operations, wherein the functional operations include a first functional operation with one or more associated parameters;
>
> automatically generating a program that implements the prototype, in response to the specified prototype, wherein the program is operable to execute independently of the prototyping application;
>
> wherein said automatically generating the program comprises automatically generating a graphical user interface for the program;
>
> wherein said automatically generating the graphical user interface comprises automatically creating one or more graphical user interface elements associated with the one or more parameters of the first functional operation, wherein during execution of the program, at least one of the one or more graphical user interface elements is displayed and is operable to receive user input independently of the prototyping application. (*Emphasis added*)

Blowers teaches that a design engine or task sequencer engine 46 is used to configure a desired sequence of functional tasks. A user creates the desired sequence by selecting graphical representations or icons from the tool boxes of FIG. 5. As the user is creating the sequence of functional tasks, the user can configure parameters of the functional tasks as illustrated in FIGS. 7 and 8 with respect to the blob and alignment vision tools, respectively. Once the desired sequence has been created, it can be stored or saved in a condensed method within an inspection sequence file 52 which is useable by

the engine 46. The engine 46 takes the condensed stored sequence from the file 52 and executes it through the runtime screen of FIG. 9. (*See Col. 8, line 61 – Col. 9, line 25*)

Blowers does not teach the combination of elements recited in amended claim 1. In particular, Blowers does not teach receiving user input to a prototyping application to specify a prototype and automatically generating a program to implement the prototype, wherein the automatically generated program is operable to execute independently of the prototyping application. As described above, Blowers instead teaches that an engine 46 is used to configure a desired sequence of functional tasks, and the desired sequence is then executed by the engine 46.

Blowers also does not teach the recited elements of, "wherein said automatically generating the graphical user interface comprises automatically creating one or more graphical user interface elements associated with the one or more parameters of the first functional operation, wherein during execution of the program, at least one of the one or more graphical user interface elements is displayed and is operable to receive user input independently of the prototyping application".

Applicant thus respectfully submits that claim 1 is allowable over Blowers for at least the reasons set forth above. Claims 3-13, 46-47, and 56-59 are dependent upon claim 1, and thus, Applicant submits that these claims are also allowable for at least this reason. In addition, Applicant respectfully submits that numerous ones of the dependent claims recite further distinctions over Blowers.

For example, amended claim 3 recites the further limitation of, "wherein said automatically generating the program comprises automatically generating source code for the program without direct user input specifying the source code." Blowers does not teach automatically generating source code for a program. More particularly, Blowers does not teach automatically generating source code for a program that is automatically generated in response to a prototype specified by user input.

As another example, amended claim 8 recites the further limitations of,

> "wherein the automatically generated program comprises a graphical program;
>
> wherein automatically generating the program comprises automatically generating graphical source code for the graphical program, wherein the graphical source code includes a plurality of interconnected nodes that visually indicate functionality of the graphical program."

Blowers does not teach the elements recited in claim 8. With respect to the rejection of claim 8, the Examiner asserts that, "as seen in Figure 6, the generated program is a graphical program, comprising a plurality of interconnected nodes that visually indicate functionality of the program." However, Figure 6 illustrates an exemplary task sequencer list configured by the design engine or task sequencer engine 46. (*See Col. 8, lines 61-67*) As discussed above, the sequence of tasks is created in response to user input selecting graphical representations or icons from the tool boxes of FIG. 5. Figure 6 does not illustrate a program that is automatically generated in response to a prototype specified by user input, as recited in claims 1 and 8.

In addition to the particular dependent claims discussed above, Applicant submits that numerous ones of the other dependent claims recite further distinctions over Blowers. However, since independent claim 1 has been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

Independent claims 14, 27, 40, 53, and 55 recite similar limitations as discussed above with respect to claim 1. Thus, Applicant submits that these claims, and the claims respectively dependent thereon, are also allowable over Blowers, for reasons similar to those discussed above.

As per amended claim 48, the claim recites as follows:

> 48. (Currently Amended) A method for generating a computer program, the method comprising:
>
> receiving user input specifying a prototype, wherein the prototype comprises a series of functional operations, wherein at least one of the operations has an associated one or more parameters;
>
> in response to said receiving user input specifying the prototype, automatically generating a graphical program, wherein automatically generating the graphical program comprises automatically generating a plurality of interconnected nodes that visually indicate functionality of the graphical program, wherein the plurality of interconnected nodes are operable to perform the series of functional operations;
>
> wherein said automatically generating the graphical program comprises automatically generating a graphical user interface for the graphical program, wherein the graphical user interface for the graphical program comprises at least one graphical user interface element which is associated with at least one of the one or more parameters;

wherein the graphical program is interpretable or compilable.

Blowers does not teach the combination of elements recited in amended claim 48. In particular, Blowers does not teach automatically generating a graphical program, wherein automatically generating the graphical program comprises automatically generating a plurality of interconnected nodes that visually indicate functionality of the graphical program. With respect to the rejection of claim 48, the Examiner cites Col. 8, lines 61-67 of Blowers. This portion of Blowers teaches that,

> "A design engine or task sequencer engine 46 is used to configure and test the flow and design of the application software as illustrated by an exemplary task sequencer list of FIG. 6. Graphical representations or icons are selected from the tool boxes of FIG. 5 which correspond to desired functional tasks and are linked into the tree structure of FIG. 6 by a task sequencer interface 50 in the desired locations."

Thus, the desired sequence of functional tasks is created in response to user input selecting graphical representations or icons from the tool boxes of FIG. 5, as discussed above. Blowers does not teach automatically generating a graphical program in response to receiving user input specifying a prototype, wherein automatically generating the graphical program comprises automatically generating a plurality of interconnected nodes that visually indicate functionality of the graphical program, and wherein the plurality of interconnected nodes are operable to perform the series of functional operations of the prototype. Applicant thus respectfully submits that claim 48 is allowable over Blowers.

Independent claim 50 recites similar limitations as discussed above with respect to claim 48. Thus, Applicant submits that claim 50, and the claims respectively dependent thereon, are also allowable over Blowers, for reasons similar to those discussed above.

§103 Rejections

Claims 6, 19, and 32 were rejected under 35 U.S.C. 103(a) as being patentable over Blowers. Applicant respectfully traverses this rejection.

Applicant reminds the Examiner that if an independent claim is non-obvious under 35 U.S.C. 103, then any claim depending therefrom is non-obvious (*In re Fine*, 837

F.2d 1071, 5 USPQ2d 1596, Fed. Cir. 1988). Thus, since the independent claims have been shown above to be patentably distinct and non-obvious over the cited references, Applicant respectfully submits that the dependent claims 6, 19, and 32 are also patentably distinct and non-obvious.

Applicant also submits that claims 6, 19, and 32 recite further distinctions over the cited art. In the rejection of these claims, the Examiner asserts that, "Blowers discloses that a plurality of parameters are associated with the functional operations, wherein receiving user input specifying which of the plurality of parameters are desired to have associated graphical user interface elements (column 3, lines 28-31)." However, this portion of Blowers reads as follows:

> "Then, the method includes receiving commands from a user to select desired hardware operating parameters corresponding to desired hardware and a machine vision graphical representation and its associated first control program corresponding to a desired machine vision task."

Thus, Blowers teaches receiving commands from a user to select desired parameters, but teaches nothing at all about receiving user input specifying which parameters are desired to have associated graphical user interface elements. Applicant thus respectfully submits that claims 6, 19, and 32 are allowable.

CONCLUSION

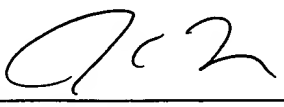
Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-43700/JCH.

Also enclosed herewith are the following items:

☒ Return Receipt Postcard

Respectfully submitted,



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